

JAMES A. JOHNSTON.

Improvement in Carriage-Wheels.

No. 127,064.

Patented May 21, 1872.

Fig 1

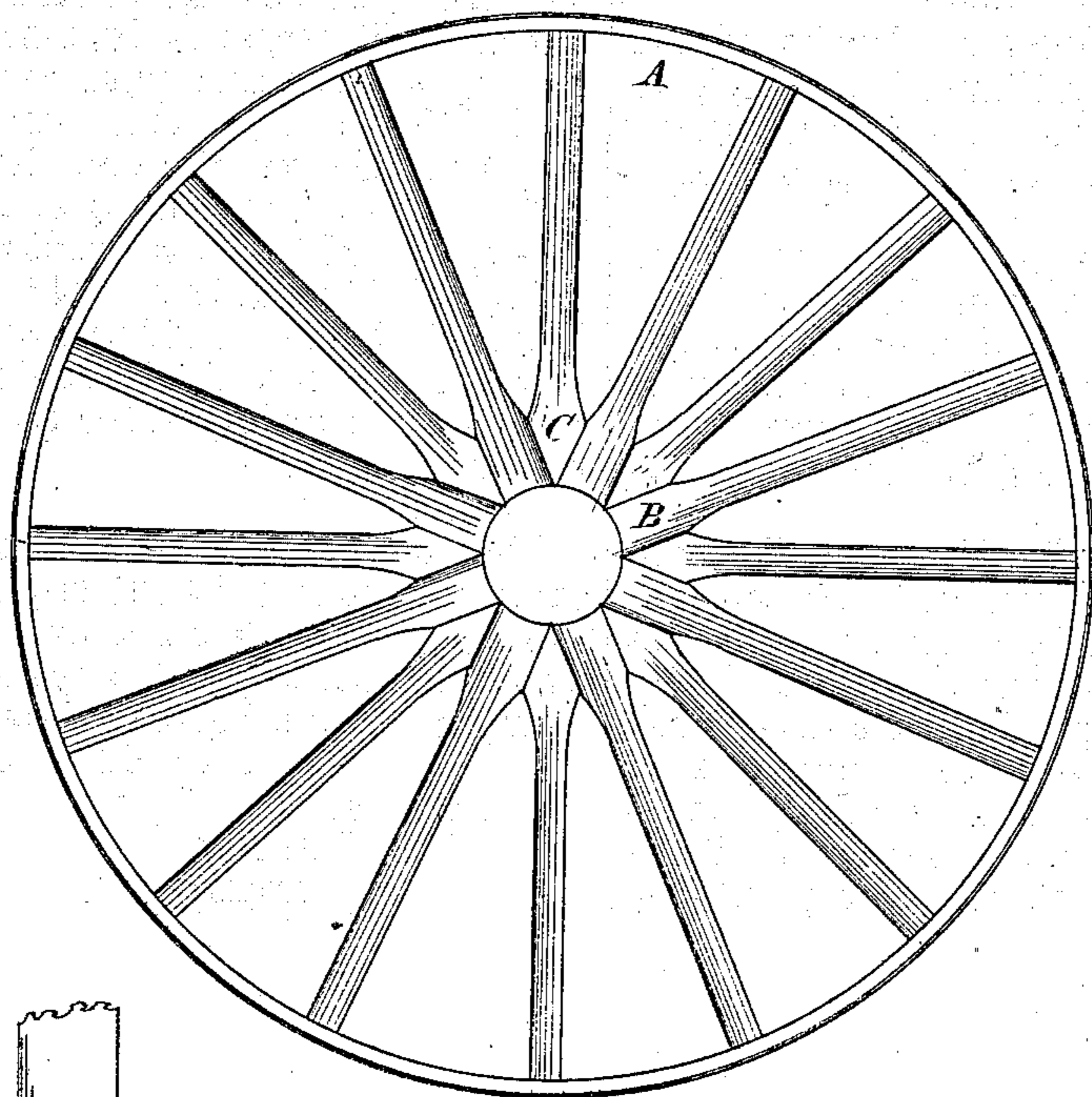


Fig 2

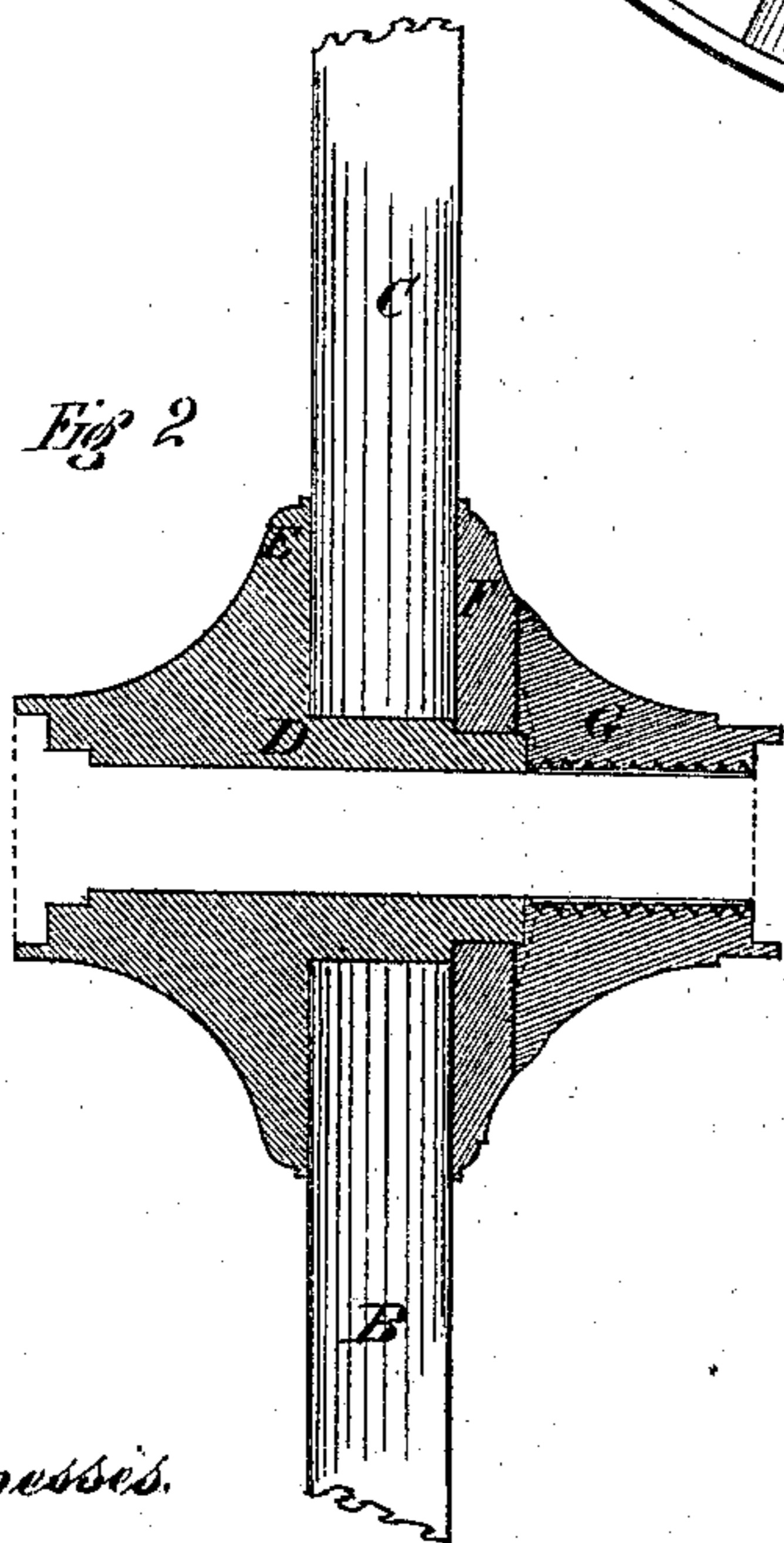


Fig 3

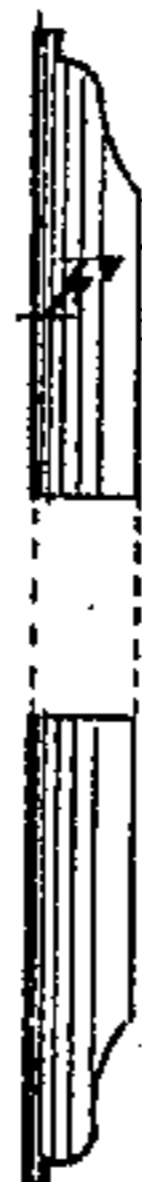
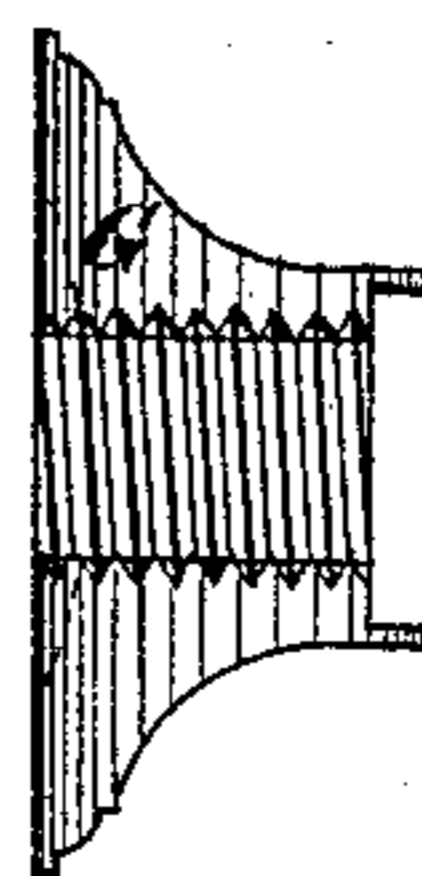


Fig 4



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES A. JOHNSTON, OF TOPEKA, KANSAS.

IMPROVEMENT IN CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 127,064, dated May 21, 1872.

SPECIFICATION.

I, JAMES A. JOHNSTON, of Topeka, in the county of Shawnee and State of Kansas, have invented certain Improvements in Carriage-Wheels, of which the following is a specification:

My invention relates to the construction of carriage-wheels by the combination of alternate straight and tapered spokes, (without tenons,) forming an arc around and resting on the box of the axle, and kept in position by sections of metal, forming box and hub complete.

In the four figures of the drawing I illustrate the manner in which my wheel is constructed. Each alternate spoke B, as in Fig. 1, is made straight on all sides, as in the construction of spokes before tenoning. They are then placed in position around the center, touching each other at the inner end, these forming the inside of the arc. Spoke C is then cut to fill the space between B B, but not coming entirely

through or protruding, thus forming their bearing on B B, respectively, making a self-supporting wheel, when combined with sections D E F G of box or hub. Any style of axle may be used; but the box should be formed as in D E. On the outer end of box D is a screw, to combine G, the front part of the hub, to D. The box or hub D E is turned up in a lathe, and by means of a tool a thread or screw is cut on the face of E, and also on F, for the purpose of drawing all the spokes to the center when combined.

I claim—

The combination of alternate straight and tapered spokes, (without tenons,) forming an arc around and resting on the box of the axle, and kept in position by sections of metal, forming box and hub complete, as described.

JAMES A. JOHNSTON.

Witnesses:

WM. KESLEY,
J. W. CLEMENTS.